

broad, but its form is very similar, and distinct from that of other grallatorial birds. It differs from *Thinorchus* (with which I at first thought it might be allied) in having two fissures in the posterior margin of the sternum, *Thinorchus* having but one. On comparing the skeleton with some portion of the skeleton of *Glareola pratincola*, the bones are almost identical in form, particularly the sternum, head and pelvis. I should therefore be inclined to place *Chionis* and *Glareola* in the same family.

Mr. G. R. Gray arranges this form along with the *Thinocorinæ* in his order 'Gallinæ'; Prince Bonaparte, in his 'Conspectus Systematis Ornithologiæ' (1854), places it next to the Gulls, in the order 'Gaviæ.'

3. OBSERVATIONS ON THE GENUS CUSCUS, WITH THE DESCRIPTION OF A NEW SPECIES. BY DR. J. E. GRAY, F.R.S., V.P.Z.S., PRES. ENT. SOC., ETC.

(Mammalia, Pl. LXI. LXII.)

Mr. Wallace having sent two specimens of this genus to the British Museum, to determine them I went over the previous observations on the genus, and examined the numerous specimens which are in the Museum collection, received from the French voyages of discovery, Mr. J. Macgillivray, the Naturalist of H.M. Ship 'Rattlesnake,' and those now sent from the Island of Ula; and I have come to the belief that they are all to be referred to four species, which are very variable in the colour of the fur; one being variable in both the sexes, and the other, in which the sexes differ greatly from each other, but appear to be permanent in their colour; one species in which the furs of the two sexes are alike and uniform in colour; and one, of which the female sex only is known, which is uniform iron-grey.

The two have the ears small, hairy on both sides, and hidden in the fur; the other two have larger ears, exposed beyond the fur and bald within.

Herr Temminck, in the first volume of the 'Monographies de Mammologie,' published in 1827, divides the short hairy-eared kinds into three species.

At the time he wrote he only had specimens from the northern part of Celebes, brought home by Professor Reinhardt, and from the islands of Banda and Amboyna.

The species evidently depend principally on the colour of the fur, which appears to be very variable in different individuals. It is true that he describes and figures skulls of the different individuals; but the difference between those of *Phalangista chrysorrhos* and *P. maculata* appears chiefly to depend on the age and development of the specimen figured. M. Temminck and the writers of his school always forget that the skull and other parts of the skeleton are liable to quite as much variation from local circumstances, food,



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TRACHYOPYGUS



and other accidental causes, as the colour of the fur or the size of the animal.

1. In *Phalangista ursina* the fur is thicker and closer, and the long hairs thicker than in the other species, blackish, with yellow tips to the longer hairs; and the forehead of the skull is flat. Of this he had several specimens of different ages, all brought by Professor Reinhardt from the northern part of Celebes, the natives of which have not observed any varieties in colouring.

2. *P. chrysorrhos* is described from two specimens brought home by the same Professor, from some of the Moluccas, which have a short cottony fur, of an ash-grey more or less black, and the rump and upper part of the base of the tail golden-yellow.

3. Of *P. maculata* Herr Temminck particularly observes, that the fur in all ages and in both sexes is covered with irregular white or brown spots, which are paler and less marked in the young. The very young are sometimes entirely ashy. They come from Banda and Amboyna.

The yellow colour of the rump and the base of the tail, as far as the specimens in the British Museum show, is common to the ashy specimens, which might be called *P. chrysorrhos*, and the variegated specimens, which might be named *P. maculata*: it is very difficult to distinguish the pale-rumped ashy ones from those without that mark; but it is easy to connect the grey or ashy spotted ones with either the one or the other; and it is impossible to separate the ashy-grey spotted ones from the brown or orange spotted specimens. In one specimen the animal is nearly white, with some small dark spots about an inch over; and in another the animal is white, with red feet, and one large red spot on the middle of the back.

From the examination of the specimens in the British Museum, and of their skulls, I am inclined to believe that the *P. ursina* is distinct, and that *P. chrysorrhos* and *P. maculata* are varieties of the same species.

#### 1. CUSCUS MACULATUS.

Ears almost hidden in the fur, clothed internally and externally with fur; forehead convex; forehead of the skull convex and rounded in front; grinders moderate; fur ashy-grey, or white and grey, or reddish, varied or spotted. Rump and base of the tail yellowish-white.

*Phalanger*, male, Buffon, H. N. xiii. t. 11.

*Phalangista maculata*, Desm. N. D. H. N. xxv. 472; Temm. Monog. i. 14. t. 3. f. 1-6; Quoy & Gaim. Voy. Uran. Zool. 59. t. 7; Waterh. Mamm. i. 274. f. .

*Phalangista ursina*, part., Waterh. Mamm. 267.

*Phalangista chrysorrhos*, Temm. Monog. i. 12; Waterh. Mamm. i. 271.

*Cuscus maculatus*, Lesson & Garnot, Voy. Coq. Zool. 150. t. 4.

*Cuscus macrourus*, Lesson & Garnot, Voy. Coq. Zool. i. 156. t. 5; Waterhouse, Mamm. i. 277.

*Hab.* New Guinea.